

a wrapper around said tobacco rod, said wrapper having a permeability of at least 20 CORESTA, said wrapper permeability being sufficient to prevent the smoking article from being self-extinguishing, said smoking article having reduced sidestream smoke.

A marked-up copy of Claim 31, as amended, is enclosed for the Examiner's review.

Please cancel claims 40-47 which were withdrawn from consideration by the Examiner in the Office Action of February 26, 2003. The applicant again reserves the right to file one or more divisional applications directed to these claims.

Please add new claim 48, as follows:

48. (New) The smoking articles of Claim 31 wherein said activated carbon particles are present in said tobacco rod in a form and in an amount sufficient to provide said reduced sidestream smoke in the smoking article when compared to a smoking article absent activated carbon particles.

#### REMARKS

Applicant, his principal representatives in the United Kingdom, and the undersigned have carefully reviewed the first Office Action of February 26, 2003 in the above-identified U.S. patent application, together with the prior art cited and relied on by the Examiner in the rejections of the claims. In response, one of the claims has been amended, the claims withdrawn from consideration have been canceled, and a new claim has been added. It is believed that the claims now pending in the application are patentable over the prior art

cited and relied on by the Examiner. Reexamination and reconsideration of the application, and allowance of the claims, is respectfully requested.

In the Office Action of February 26, 2003, the Examiner acknowledged receipt of the RCE and entered the Second Preliminary Amendment filed February 10, 2003. The Examiner withdrew newly submitted claims 40-47 from consideration. These withdrawn claims have now been canceled. Applicant expressly reserves the right to file one or more divisional applications directed to these claims.

Claims 31-39 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite. The Examiner asserted that the term "increased perceived mildness" is a relative term which renders the claim indefinite. This phrase has been canceled from amended Claim 31. It is believed that Claim 31, as amended, complies with 35 U.S.C. 112, second paragraph, and that it particularly points out and distinctly claims the subject matter which applicant regards as the invention.

Claims 31 and 34-39 were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 3,805,803 to Hedge in view of U.S. Patent No. 5,109,876 to Hayden et al. Claims 32 and 33 were rejected under 35 U.S. C. 103(a) as being unpatentable over Hedge in view of Hayden et al. and further in view of U.S. Patent No. 5,261,425 to Raker et al.

The present invention, as recited in amended claim 31, and in newly presented claim 48, relates to a smoking article comprising a tobacco rod which includes a blend of shredded tobacco and shredded reconstituted tobacco sheet, the reconstituted tobacco

sheet containing activated carbon particles, and a wrapper having a permeability of 20 CORESTA or greater. The smoking article of the present invention has reduced sidestream smoke and is not self-extinguishing when it is not being actively smoked. Sidestream smoke is understood to be the smoke which is produced when a smoking article, such as a cigarette, is lit but is not being drawn upon by the smoker. It includes both visible smoke as well as vapor phase constituents.

Many attempts have been made to produce cigarettes having reduced sidestream smoke, since such sidestream smoke is often perceived to be annoying to non-smokers. It is well-known in the tobacco industry to use low permeability wrappers to reduce sidestream smoke, typically using wrappers having a permeability of less than 20 CORESTA, and preferably less than 10 CORESTA. It is known that, in general, the lower the wrapper permeability the lower the amount of sidestream smoke. Alternatively, sidestream smoke may be reduced by increasing the amount of filler material in a wrapper. It is apparent, therefore, that a smoking article according to the present invention, incorporating a wrapper having a permeability of at least 20 CORESTA, would not be expected to result in the achievement of the reduction of sidestream smoke as claimed. Use of wrappers having a permeability of 20 CORESTA or greater overcome the problems encountered in the prior art of using lower permeability wrappers, namely the tendency for self-extinguishment and negates the need for any special precautions to be taken to ensure the smoking article does not self-extinguish. It may be seen that the use of a high permeability wrapper on a smoking article with the aim of reducing sidestream smoke

would not be contemplated in view of the prior art and the accepted procedures in the tobacco field at the time the present application was filed.

The first Office Action of February 26, 2003 rejects Claims 31 and 34-39 as being obvious over Hedge (US 3,805,803) in view of Hayden et al. (US 5,109,876). Hedge discloses a smoking article comprising a blend of shredded tobacco and reconstituted tobacco, the reconstituted tobacco having carbon therein. Hedge does not disclose the use of wrappers having given permeabilities. Further, Hedge relates to a reduction of mainstream yields and does not contemplate a reduction in sidestream smoke. Hayden et al. discloses wrappers for the production of ash and burn characteristics in a smoking article without undesirable off-taste or off-aroma to the smoke produced when smoked, the wrappers having an inherent porosity below 400 CORESTA. There is, however, no suggestion of the use of a wrapper specifically having a permeability of at least 20 CORESTA, and no suggestion of the wrappers being used to effect a reduction in sidestream smoke. A combination of the teachings of Hedge and Hayden et al. would thus not result in the claimed invention. It would not be obvious to a person skilled in the art to combine these documents.

It is believed that the present invention, as set forth in amended Claim 31 and in newly present Claim 48, is patentable in view of the prior art. A finding of obviousness under 35 U.S.C. §103 requires a determination of: the content and scope of the prior art; the level of ordinary skill in the art; the difference between the claimed subject matter and the prior art; and whether the differences are such that the subject matter as a whole would

have been obvious to one of ordinary skill in the art at the time the invention was made. Graham v Deere 383 U.S. 1 (1966). It is necessary to ascertain whether the prior art suggests the invention and whether the prior art provides one of ordinary skill in the art with a reasonable expectation of success. In re O'Farrell, 853 Fig.2d 894,903 (Fed. Cir. 1988), In re Vaeck, 947 Fig.2d 488 (Fed. Cir. 1991). In the present case, the prior art does not suggest the reduction of sidestream smoke in smoking articles by the use of a tobacco rod comprising a blend of shredded tobacco and shredded reconstituted tobacco sheet, the reconstituted tobacco sheet containing activated carbon particles, together with a wrapper having permeability of at least 20 CORESTA. There is no suggestion in the references themselves or in the knowledge generally available to one of ordinary skill in the art to combine the cited references with the object of producing a smoking article having reduced sidestream smoke. Further, in view of the prior common knowledge within the tobacco field that increasing wrapper permeability increases sidestream smoke, a person of ordinary skill in the art would not have a reasonable expectation of success of reducing sidestream smoke by using a wrapper having the stated permeability at the time the present invention was made.

Referring to Example 2 and to Table 3 as set forth in the subject patent application, there is provided data showing the sidestream smoke increment for NFDPM and for nicotine for cigarettes made in accordance with the present invention, and for control cigarettes. Table 3 demonstrates a reduction in NFDPM or sidestream smoke for each test cigarette compared to its control. This clearly demonstrates that the composition of the

tobacco rod in accordance with the present invention provides a cigarette, made with a wrapper having a permeability defined by a CORESTA value that is higher than those used in traditional sidestream smoke reducing cigarettes, that provides reduced sidestream smoke while not having the self-extinguishment problems that are inherent with low permeability wrappers.

The importance of this invention is that a reduced sidestream smoke cigarette or other smoking article can be produced while still using a wrapper permeability that does not have self-extinguishment problems. There is no need to add burn enhancers to the tobacco rod or to the wrapper as was required in prior low sidestream smoke articles that relied on low permeability papers to reduce the sidestream smoke. Such burn enhancers have added materials to the smoking article which may affect the taste of the smoke and which various smokers may thus find to be objectionable. The utilization of the tobacco rod in accordance with the present invention, as recited in amended Claim 31, provides a reduced sidestream smoking article that is not taught or suggested by the prior art cited and relied on by the Examiner, taken either singly or in combination. Thus, Claim 31, as well as claims 34-39, are believed to be patentable.

The secondary reference to Raker et al. does not supply the teachings missing from the Hedge and Hayden et al. references. Raker et al. shows a cigarette with a two layer paper wrapping material. The inner wrap has an optional carbonaceous material. A number of natural cellulosic materials can be pyrolyzed to arrive at the combustible carbonaceous material. While these materials include some of the materials recited in the

subject application, there is no further teaching in the Raker et al. reference that would supply or suggest the teachings missing from the two previously discussed references. If the specific sources of the Raker et al. reference were utilized in the Hedge reference, the resultant tobacco rod would not be obvious to one of skill in the art to be used in the manner taught by the Hayden et al. reference to result in a smoking article providing the previously believed mutually exclusive results of reduced sidestream smoke in a smoking article that uses a wrapper with sufficient permeability that it does not require burn additives to prevent it from being self-extinguishing. Thus, claims 32 and 33, which depend from believed allowable amended Claim 31, are also believed to be allowable.

Newly presented Claim 48 depends from believed allowable Claim 31 and is also believed to be allowable. Newly presented claim 48 recites that the activated carbon particles are present in the tobacco rod in a form and an amount sufficient to provide the reduction in sidestream smoke, when compared to a smoking article that is absent the activated carbon particles. There is no teaching or suggestion of this in the cited prior art relied on by the Examiner. As discussed above, the Hedge patent teaches the inclusion of carbon particles. However, its purpose is to obtain a reduction in total particulate matter in smoke and a reduction of total nicotine alkaloids in smoke. There is no teaching or suggestion in Hedge that the use of particles of activated carbon in the reconstituted tobacco sheet that is shredded and blended with shredded tobacco to form a tobacco rod will provide a smoking article, when used with a permeable wrapper of 20 CORESTA or greater, which will reduce sidestream smoke and which will provide a smoking article that

is not self-extinguishing. Thus, newly presented dependent claim 48 is also believed to be allowable.

The prior art of record which was not relied on in the rejection of the claims has been reviewed. Since it was not relied on, no further discussion thereof is believed to be warranted.

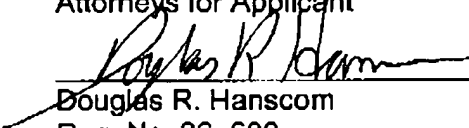
Claim 31 has been amended. Claims 40-47 have been canceled. New claim 48 has been added. Claims 32-39 are carried forward. It is believed that all of the claims now pending in the subject application are patentable over the prior art cited and relied on by the Examiner. Allowance of the claims, and passage of the application to issue, is respectfully requested.

Respectfully submitted,

John Roger SAMPSON

JONES, TULLAR & COOPER, P.C.

Attorneys for Applicant

  
Douglas R. Hanscom  
Reg. No. 26, 600

May 23, 2003  
JONES, TULLAR & COOPER, P.C.  
P.O. Box 2266 Eads Station  
Arlington, Virginia 22202  
(703) 415-1500  
Attorney Docket: SAMP-US1



**MARKED-UP COPY OF AMENDED CLAIMS**  
**SAMPSON - 09/582,232**

31. (Amended) A smoking article comprising:

a tobacco rod, said rod comprising a blend of shredded tobacco and shredded reconstituted tobacco sheet, said reconstituted tobacco sheet containing activated carbon particles; and

a wrapper around said tobacco rod, said wrapper having a permeability of at least 20 CORESTA, said wrapper permeability being sufficient to prevent the smoking article from being self-extinguishing, said smoking article having reduced sidestream smoke [and increased perceived mildness during smoking].